

ROAD TRANSPORT SECTOR REFORMS: THE TANZANIAN EXPERIENCE

by

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ABSTRACT

Transport plays a key role in the growth of any country's economic development. This has been the case since the creation of organized community structures by the man. Its role as a facility for movement of goods and people from one place to another for social and economic growth has been very useful. The transport sector is divided into four main sectors, which are surface transport (including roads, railways) inland waterways (lakes and rivers), air transport and sea transport.

The road transport sub sector is a major mode of the surface transport that has been more developed and is the cheapest, popular, convenient, compared to other mode and can be afforded by many people regardless of the mechanism used. This facility also provides a major mode of passenger transport and dominates other mode of transport in terms of employment creation.

This paper reviews the reforms, which have taken place within the road sub sector in the last thirty years and the impact on road maintenance and management in Tanzania. The paper further reviews the role of road transport operations and their contribution to economic growth and eventually to welfare of the people of Tanzania. Furthermore the paper underscores that transport interventions have an important role as a direct tool for development of other sectors of the economy. Finally the paper acknowledges that this mode of transport assures adequate access to basic social services and markets, as well as provision of modest, low cost transport that can be of substantial value to the society.

The paper will highlight the major impact of the reforms in the road sector and in particular how the same has affected the development of the rural areas in Tanzania.

Finally this paper will recommend the areas of reform that need to be given priority in the road sector which will accelerate the speed of achieving the desired goals.

1. INTRODUCTION

Institutional constraints in the road transport sector in Tanzania have been recognised as a major factor preventing efficient and effective road management for a number of years. Among the early consultants to look into the performance of the road sector was Lyon Associates, Inc.¹ Baltimore Maryland, of USA; and Mackinsey & Company, Inc. both in the

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early 70's. Others included a number of consultants namely: Robinson 1988, Butcher 1992, Donkor 1993, Kaombwe 1994, CarlBro International 1996 and WSP International 1997. All these studies on road sector performance in Tanzania had identified the need for:

- a) Adequate road maintenance funding coupled with good and efficient management,
- b) Separation of executive and regulatory functions,
- c) Adequate remuneration for staff,
- d) Increased delegation and decentralisation,
- e) Avoidance of duplication of function, and,
- f) A more business like, commercial approach.

Restructuring in the road transport sector is not new to the institutional set up of the Government. In the early 70's under the financing of IDA the Government of Tanzania embarked on the mobile maintenance system with an objective of improving the maintenance of the road infrastructure. This was a result of a study done earlier and was a major restructuring of the institutional set up of road sector at that time. However the concept behind those reforms were improving the rate of delivery of the level of service with respect to road maintenance, which at that time had deteriorated to below the required standard as measured by then against the conventional methods in use. The mobile maintenance system proved a failure within about two years. In 1974 during decentralization and in trying to strengthen the Regional Administration another major restructuring took place in the sector, transferring the development and maintenance of the trunk and regional roads to the Regional Engineer and making the Regional Engineer responsible for the entire road network within the region.

The need for these types of reform in Tanzania and in many African countries has been well documented by the World Bank's Road Maintenance Initiative (RMI) unit and other documents available under road transport institutional reforms in the World Bank. Local professionals in the transport sector have long endorsed these proposals and documented them in conference and workshop proceedings. This paper does not describe them in any detail, and instead will focus on how these changes affected the road sector in Tanzania.

The reforms referred above focused on improving the level of service in the road sector. However, they were not considered as first steps towards commercialization of the road transport services. Such processes to consider reforms in the context of commercialization started in Tanzania in 1990, but consensuses, acceptance and political will for these changes were only achieved and established in 1998 when the Road Toll Act that established the Road Fund was approved by the Parliament. It therefore took a long time for Tanzania's government to recognise and accept the need to develop the road transport sector services as a commercial entity so that it can be offered at a fee.

As said above it was in June 1998 that, the Road Toll Amendment Act was passed by parliament, which created a ring-fenced dedicated road fund that, resulted in funding for road maintenance dramatically increased. There has been further fine-tuning of the Act to bring in greater road-user involvement, transparency and accountability procedures. Furthermore a Road Fund Board has been established with a Chairperson from the private sector in accordance with the Act and a Road Fund Management Office has been set up and is functional. Despite the delay in taking action on the road sector reforms the Government has

also taken another step in creating a semi autonomous National Road Agency, called TANROADS to manage the primary road network. By doing so it is intended to increase the efficiency and effectiveness in the road sector, hence greater financial commitment. Similar reforms are been undertaken under the Local Government Reform Program (LGRP) aiming at enhancing the role of local government administrations and increasing accountability of resources for the road network, which is under the responsibility of the Regional Administration and Local Government.

2. EARLY REFORMS

Road network administration in Tanzania prior to independence can not be related to traffic management as may be done in the United Kingdom², as there were very few cars on the network. However, the need to handle problems with respect to road network management and maintenance at various intervals can be associated to with early reforms in the sector. Institutional reforms in the road sector in Tanzania dates back to the early 70's when an effort to improve and sustain the maintenance of the road network by the Government adopted the **Mobile Maintenance System** as recommended by then a study undertaken by Mckinsey & Company Inc³ dated September 1973 and titled “**MAKING COMWORKS MORE MANAGEABLE**”. This also became the basis of the then decentralization (known as “**Madaraka Mikoani**” that took place in 1974. Those reforms were purely aimed at improving the efficiency and performance of the road sector. Prior to the above study another consultant; M/s Lyon Associates Inc of Baltimore Maryland- USA had completed a study on “**Tanzania Highway Maintenance and Organization.**” This study funded by IDA had a major objective of carrying out all engineering, organizational; economic and financial studies required at that time to provide the Government of Tanzania with:

- a) a FIVE-YEAR PROGRAM, 1972-1976, for the rehabilitation and maintenance of the National Highway System;
- b) recommendations as to which Districts Roads should be included in the COMWORKS Maintenance program and the best methods and organizations needed to take over and maintain those District Roads;
- c) recommendations for the improvement of its present highway construction and maintenance organization.

2.1 Organizational Structure Reforms

The recommendations of the above study were implemented during the late 70's and early 80's. In 1988, a Road Management Consultant Mr. R. Robinson⁴ carried out a study into the then Ministry Communications and Works to review the impact of the reforms and found that:

- Upward reporting channels are confused, particularly at the Regions.
- The organisation would be improved by making it more of a pyramid shape.
- Further changes to the organisational structure should only be undertaken with major institutional reform.
- There was a lack of delegation, suggesting cultural constraints preventing western style management and leadership.
- Plans should be realistic and based on likely budget levels.

- Technical issues were tackled at the expense of human resource.

Hence the performance of the road sector at that time had deteriorated to the extent that transport became a constraint to economic recovery. Studies revealed that the deterioration of the road networks had been caused primarily by: (a) inadequate funding for road maintenance; (b) a cumbersome and inefficient institutional structure for road administration; (c) a highly centralized and bureaucratic procurement and administrative decision-making process; and (d) inadequate technical capacity to carry out maintenance and manage contracts. The results of the review were taken into consideration during the preparation of the IRP program. Since independence, the administration of the transport sector has been subjected to several and disruptive changes as a result of the changing political attitudes. It is on record that the structure of the road administration had been seriously affected by these changes better now known as reforms between the 1970's and 1980's. In 1974 the road administration was decentralized to the regions making the Regional Administration fully responsible for the regional and district roads development and maintenance of the trunk road network. In 1984, the then separate Ministries of Works and Transport were merged to form the Ministry of Communication and Works (MCW).

These changes resulted into various responsibilities for the road sector being assigned to different authorities. The Ministry of Local Government and Cooperatives at that time was responsible for development and maintenance of district roads through the District Councils and Prime Minister's Office was made responsible for regional roads through the Regional Administration while MCW was made responsible for trunk roads resulting into another complication.

In 1990, MCW was again split into the Ministry of Works (MOW) and Ministry of Communications and Transport (MCT). MCT was responsible for overall transport sector administration including overseeing responsibility for the transport parastatals. Another merger of MCT and MOW took place in October 1993 resulting into the Ministry of Works, Communication and Transport (MWCT). The marriage this time did not take long as in October 1995 MWCT was split again back to Ministries of Works and Communication and Transport (MCT&MOW). During all these mergers and splits the structures of the Ministry and that of the Department of Roads and Aerodromes have remained as per figures 2 and 3 below:

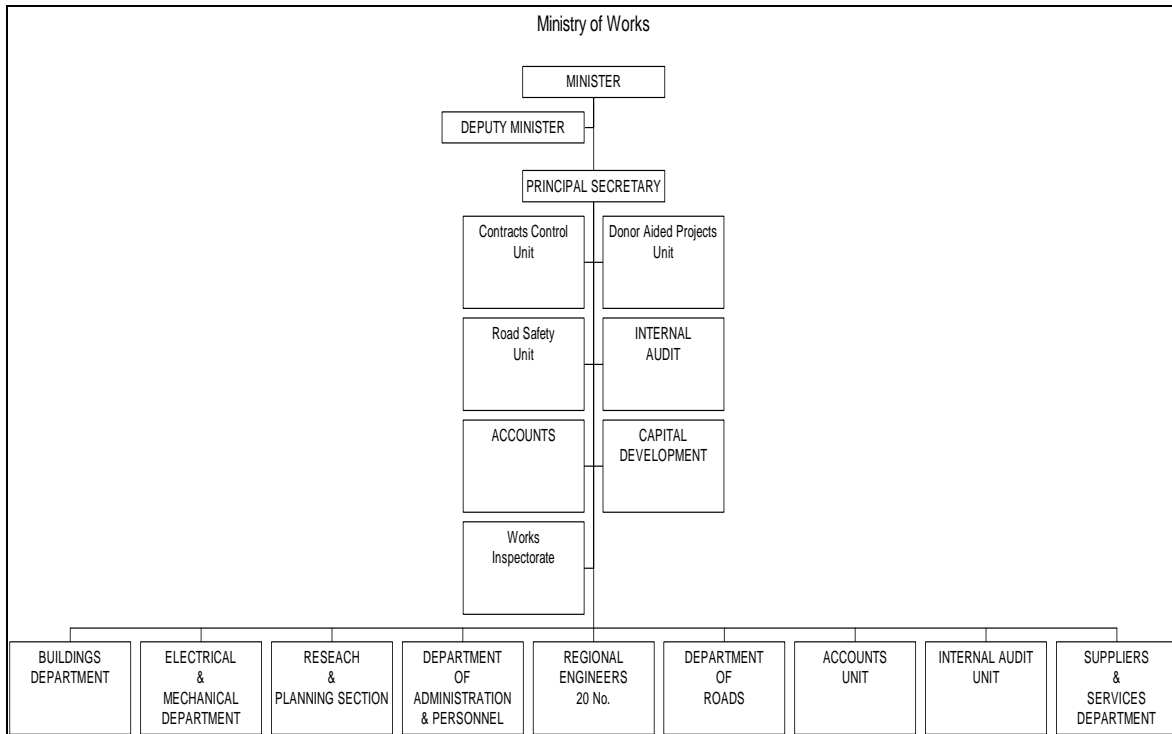


Figure 2:Ministry of Works Organisation Structure

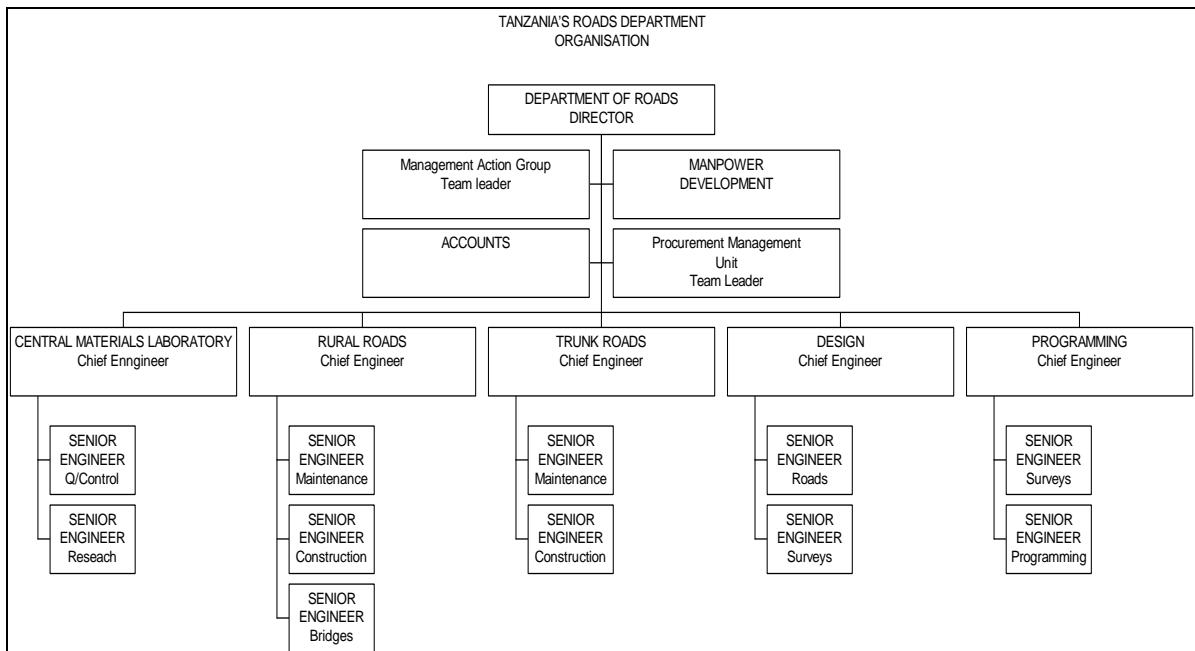


Figure 3: Department of Roads Organisation Structure

Butcher⁵, a consultant from Transit New Zealand, produced a report in August 1992 looking at the possible structure of a Road Authority (which was the thinking at that time) under the Ministry of Transport (also it was suggested that it could have been proper at that time to consider establishing a Ministry of Transport) recommending the structure shown in Fig 4. His key points were that:

- Span of control of Principal Secretary (33) is too wide.
- There is a lack of accountability of some Regional Engineers
- The split between Trunk and Rural roads is arbitrary and they should be combined.
- District Engineers should be placed under control of Regional Engineers.
- City and Municipal Engineers should be kept separate from Roads Department.

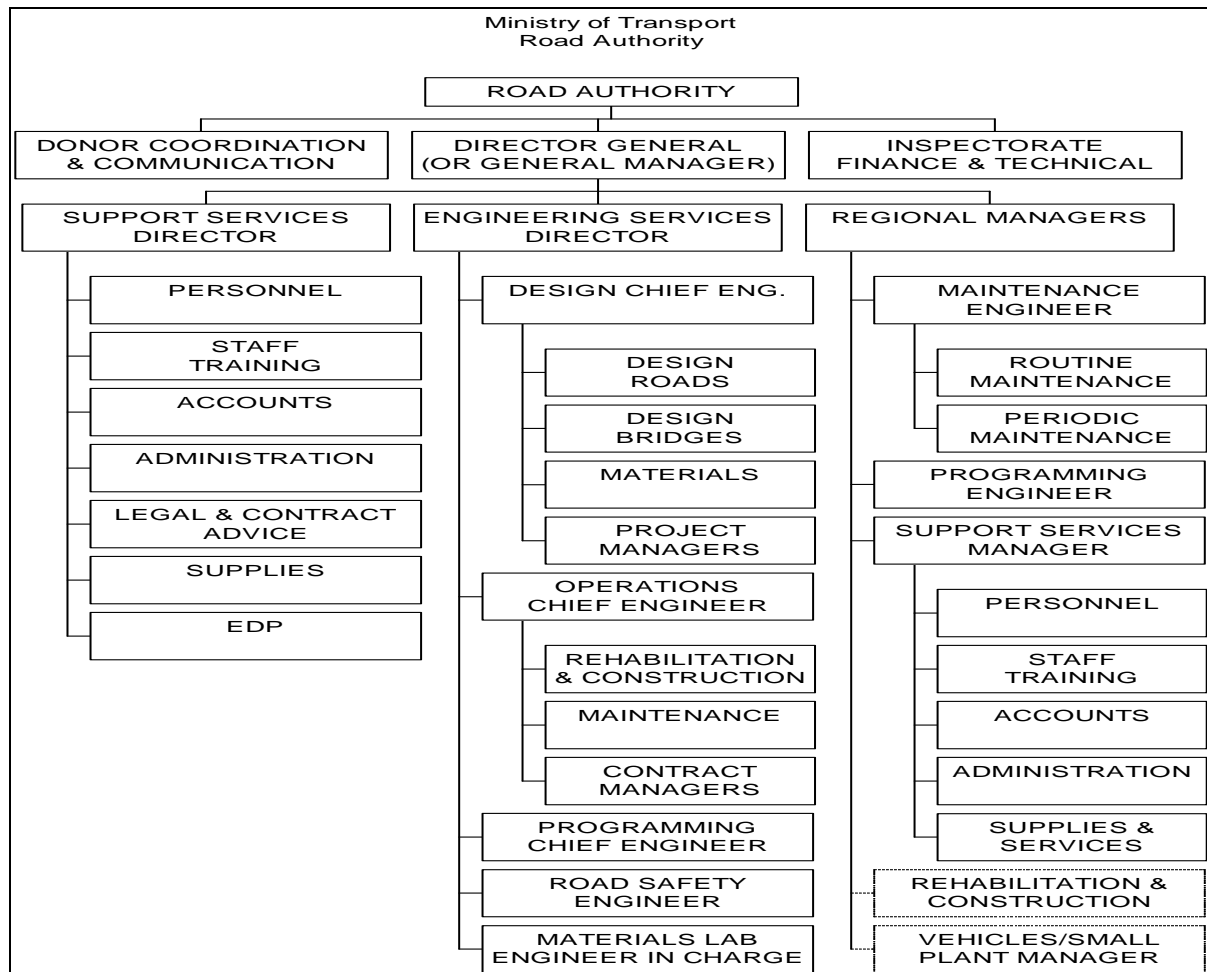


Figure 4: Butcher's Proposed Organisation Structure (1992)

E.O. Donkor⁶, a former Chief Executive of Ghana's Road Authority, carried out a study of Road Network Management in 1993, and recommended that the structure shown in Figure 4 be formed. A workshop held to discuss his report in November 1993 concluded that:

- There are many overlapping functions among various units.
- There is a lack of accountability due to poorly defined vertical relationships.
- Professional skills are dispersed among more than necessary operating units.
- There is duplication of efforts.

- Those that should report to (the then) Department of Roads & Aerodromes report elsewhere.

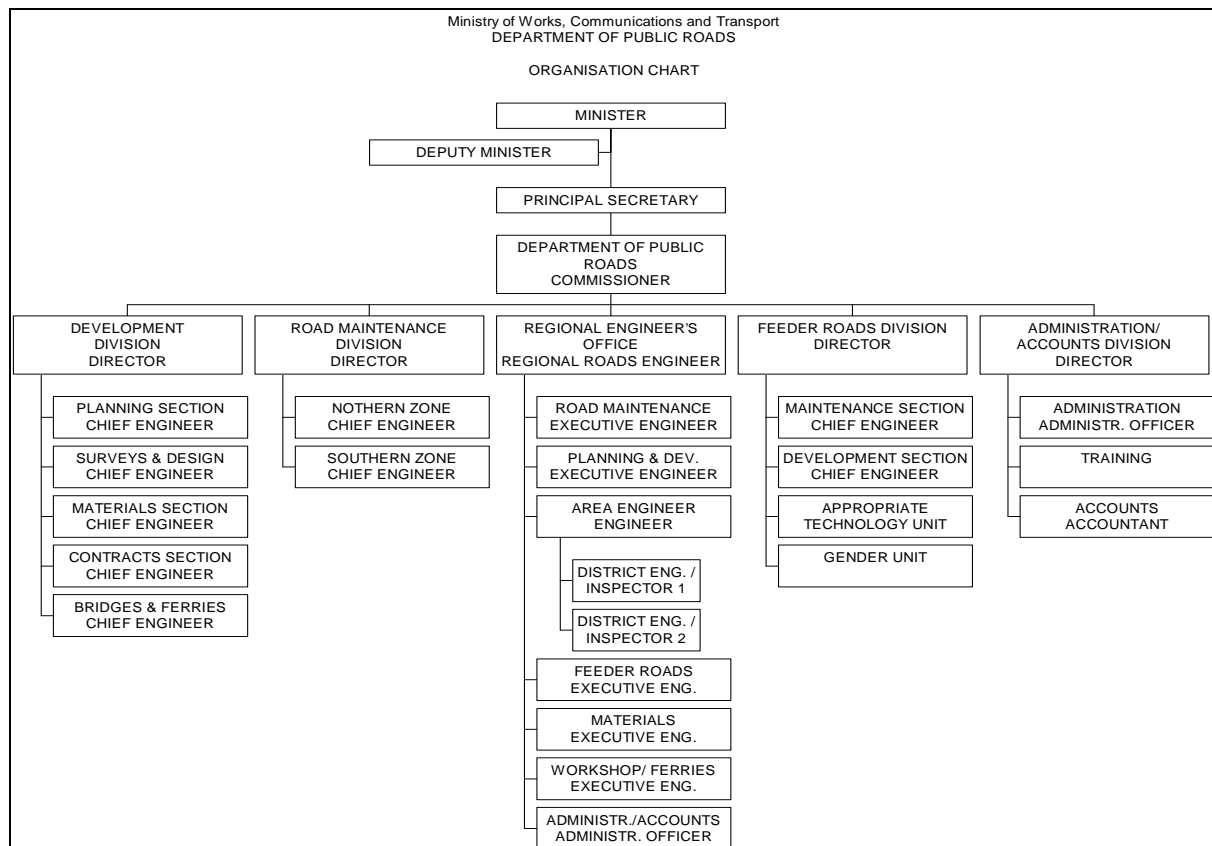


Figure 5: Donkor's Proposed Organisation Structure

2.2 Financial Reforms

The first step in trying to improve the financial flow to the road sector was taken in 1985 when the Ministry of Finance passed in Parliament the Road Tolls Act and in August 1991 the Government established a Road Fund through a Parliamentary Resolution. The fund was created to "cover the costs of rehabilitation and maintenance of the major and core roads" and is to be funded from:

- Road Tolls imposed on diesel and petrol sales at an amount to be decided annually by the Minister of Finance, effective July 1991/92; and
- Various levies and duties from motor vehicles such as licenses, registration and transfer of vehicles, at amounts to be decided by the Ministry of Finance, effective July 1992/93.
- The fuel tariff grew from 7 Tanzanian Shillings per litre (US\$0.035) in 1992 and in June 1995 it was reviewed and increased to Tsh50/litre. The tariff was further reviewed and increased to 70 Tsh/litre (\$0.1) in 97/98 and collections at that time became about TSh40b (US\$57m) enough to cover maintenance of about 75,000km of road network. This represented a three-fold increase in real terms during that period. However, contributions from levies on vehicles and other road user charges have yet to be made to the Fund.

A Study by Coopers & Lybrand⁷ in May 1994 concluded that the Road Fund did not function properly in practice. The Fund had been based on budget requests from the Ministry of Works and became merely a channel for road finance expenditures. The study further stated that the declaration to establish the Road Fund in 1992 was merely an administrative and had no legal force.

In spite of that the Road Fund did make a big difference in the years leading to 1996. The Regional Offices were receiving money regularly on a monthly basis. This instilled a lot of confidence in the local construction industry and contracting of road maintenance improved tremendously raising from close to nearly zero (about 12 local contractor were then on the register for undertaking road maintenance) in early 1990's to 70% in 1995.

3. THE RMI APPROACH

The current road sector reform in Tanzania originated from ideas conceived at a technical unit in the World Bank called the Road Maintenance Initiative (RMI) that began work in 1989. It came up with four building blocks for road sector reform as illustrated in the following chart.

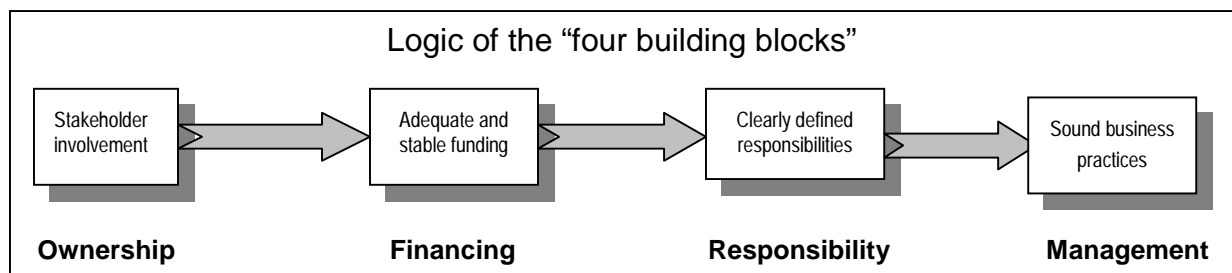


Figure 1 – RMI Building Blocks

It does not mean that there were no other reforms in the sector since 1974 as said earlier but most of those reforms were of organizational nature aiming at improving the maintenance management while the other reforms were of minor changes that did not make major impact in the sector. Most of these were in the form merger and splits of the then Ministries of Communication and Transport (MCT) and the Works, (MOW) which were normal, as this would affect only part of an existing Ministries. As for the RMI concept, Tanzania was one of the first countries in accepting the logic behind these reforms and in 1991 through a Government Declaration a Road Fund was established to deal with the adequate financing “block” under the RMI concept. The legal framework also provided a window to create Central and Regional Road Boards, which were established through a Government General Notice (GN) to gain “strong road user support” hence Ownership.

However, the Government commitment towards establishing a Road Agency was first vocalised in May 1995 hence responding to the need of having a semi-autonomous body to be entrusted with the responsibility of developing and maintaining part of the road network on behalf of the Central Government. A study by WSP International⁸ had proposed that the Agency would have being established within the framework provided under the Civil Service

Reform program. The study further proposed that the Chief Executive would have been hired by the road Fund Board on a personal contract, and report to the Minister responsible for roads, i.e. The Minister for Works. Now the Agency has been established and is known as Tanzania National Roads Agency (TANROADS) to confirm the reforms. However, the establishment did not follow exactly the recommendations of the study and efforts are underway to transform further TANROADS into semi-autonomous and commercially oriented agency”. However, this may take some time to reach that stage, hence studies need to be commission to work out the details of the ultimate reforms.

As said earlier the need for institutional reform of the road sector in Tanzania has been well established. A major, multi-donor funded programme called the Integrated Roads Project (IRP), which has been underway since 1990 contributed significantly to these reforms. Its early years were a big success, achieving substantial physical improvements on most of the paved road network in restoring the bad sections to good condition. However, a comprehensive review of the project undertaken by M/s CarlBro International⁹ revealed some weaknesses in the organizational structure and institutional set up. Some of the weaknesses were:-

- It too long to procure some of the contracts for rehabilitation and maintenance. (an average of about 189 weeks for contractors while the consultancy services took an average about 90 weeks.
- There was lack of a system for early warning on cost control.
- Due to that the Contractors and Consultants took advantage of time delays to raise claims that they knew would result into over-expenditure and maximised their benefit. This also created a big window for corruption practices.
- The training of Local Contractors and Local Consultants did materialize as planned¹⁰.
- Emergency works ended up loosing the proper engineering meaning of “**rescue a situation in danger first on adhoc basis**”, and then plan for more permanent solution and hence ended up not being “emergency” as the term depicts but “**Supposed Planned Works**” and took too long to be completed.
- With the above the urgency of further reforms could not have been more emphasised to solve these problems

4. THE CURRENT REFORM PROCESS

4.1 Government Commitment

As said earlier the Government commitment towards further reforms in the sector inorder to make the road sub-sector a commercially viable entity is assured. The agency envisaged under the Executive Agency Act is considered to be an interim as it was seen from the beginning that the Advisory Board under this act would not be appropriate for a road agency, particularly with respect to funding arrangements for the sector. It is very clear that when the other agencies under the same act have customers to offer services, for the road agency the customer is the road user who has to be convinced to pay for using the road network willingly. Thus the agency cannot raise its own funds by sale of goods and services, as the other agencies, hence in absence of independent and dependable income will severely hamper the success of the agency, alternative the Government through the Ministry of Works

would be “**The Client**” while on one hand “**Road Fund Board**” would act as a **Purchaser** for the Client and “**TANROADS**” to act as **Service deliverer** for the Client. Again this should be an interim arrangement until the review of the Highway Ordinance is complete which will accommodate both the management and the financing of the road network in the country. That is the basis on which the RMI concept is built, means and ways to achieve this can be seen through fulfilling the RMI concept within the four blocks.

4.2 A Challenge in the Process

The reforms in the early 70’s up to early 80’s were one Government and one political party and as said before they were mono in the sense that they focused on organizational reforms mainly¹¹. The current reforms are multi-dimensional such that the process demands reforms not only in the road financing but also ownership, accountability, financial flow and at the apex the need for sustainability. The environment under which the current reforms are taking place is very challenging. First the political environment has changed from one party system to multi parties. Tanzania held its first multi-party election in 1995. Although the ruling party CCM remained in power, there was a change of President, and many new Ministers and Permanent Secretaries. The new rulers needed to be appraised of the previous pledges and commitment on the reforms. Also as in the past another split of the Ministry of Works, Communications & Transport took place. This new Ministry had little incentive to make itself redundant and hive off its prime function of roads to an Authority or Agency. However, the commitment of the Government to establishing an agency was still there and in 1997 at a meeting in Bagamoyo the Ministry of Works requested the Civil Service Department (CSD) to accelerate the process to establishing the road agency. At that time the Roads Department was not in the priority list of agencies to be established within the twelve identified institutions to be converted into agencies under the Executive Agency Act in the FY 96/97. Having aired the Ministry’s wish to establish the road agency and in fact be on the list as number 13, then CSD agreed to speed up the process, and in 1997 the Ministry started the initial preparations which led to appointing the Agency Implementation Team (AIT) to undertake the necessary documentation needed for the establishment of the roads agency.

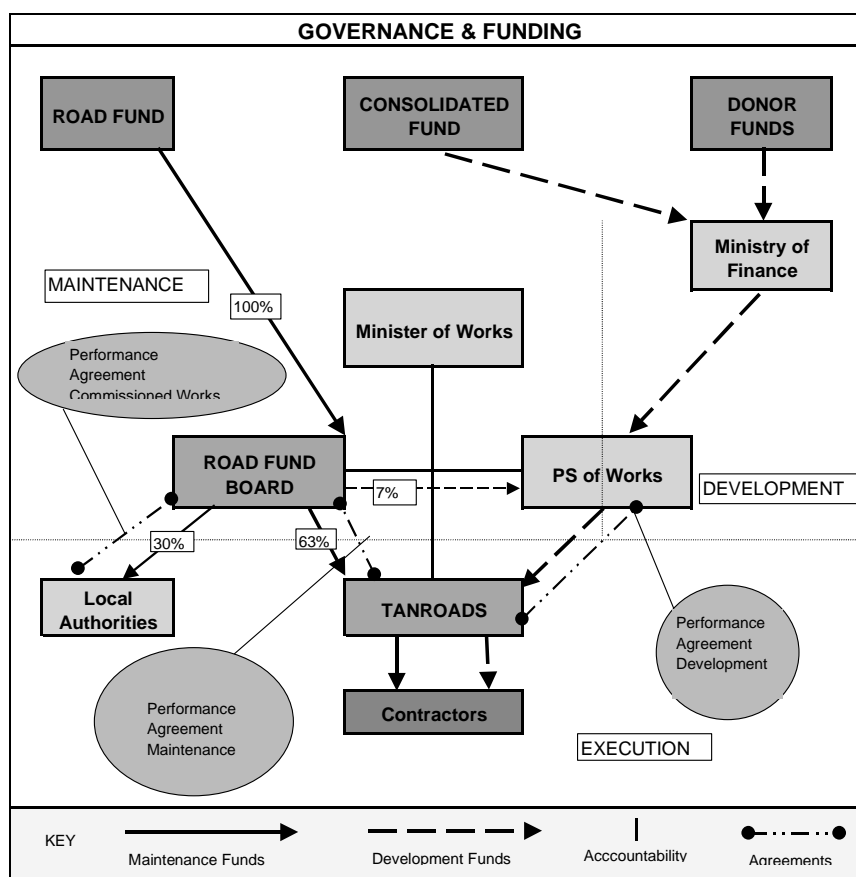
4.3 TanRoads Agency Implementation Team (AIT)

Following the decision to establish a road agency, the Ministry of Works set up an Agency Implementation Team to draw up its operating framework. The Team’s aim was to carry out a programme of analysis, consultation, organisation and systems design and planning, leading to the production of an agreed Agency Framework Document, Strategic and Business Plans, and resulting in the launch of TANROADS, operating according to the following logical framework:

Objectives	Functions	Performance Indicators	Means of Verification
Maintain Primary Road Network (about 10,300 km Trunk & 24,700 regional & essential district roads)	<ul style="list-style-type: none"> Procure Contractors & Consultants Verify certificates & pay 	<ul style="list-style-type: none"> Roads Conserved Procurement Times Quantity of Works v expenditure & time Traffic Road Users Satisfied 	<ul style="list-style-type: none"> Condition surveys Contract records Traffic Counts Road User Surveys
Develop Primary Road Network	<ul style="list-style-type: none"> Design Works (Construction) Procure Contractors & Consultants Verify certificates & pay 	<ul style="list-style-type: none"> Roads Constructed Procurement Times Quantity of Works v expenditure & time Traffic Road Users Satisfied Network coverage 	<ul style="list-style-type: none"> Condition surveys Contract records Traffic Counts Road User Surveys
Provide Technical Services	<ul style="list-style-type: none"> Collaborate with local authorities Agree Technical Standards Operate Weigh-bridges Keep Records of Assets Inspect Roads Research Ensure Safety & Environmental Standards Develop Management Systems 	<ul style="list-style-type: none"> Local authorities satisfied Overloading Controlled No. & severity of accidents Good Environmental measures Quality materials used Research utilised Systems in operation 	<ul style="list-style-type: none"> Local Authority Reports Weigh-bridge Records Accident Records Environmental Reports Materials Laboratory Reports Research Reports System user reports

Table 2: TanRoads Logical Framework

The team reviewed how the agency could be governed and recommended the option illustrated in Figure 8 as a start prior to the review of the Highway Ordinance, which will set out the appropriate organisation structure. This arrangement clearly separates the areas of maintenance financing, development financing and works execution, with the Road Fund Board, Ministry of Works and TanRoads responsible for each area respectively. It also conforms to functions envisaged for various bodies in both Road Toll Amendment and Executive Agencies Act.



Thus the road sector reform began to shape up in the FY 98/99 when the necessary steps were taken to amend the Road Tolls Act and establish the Road Fund Board, in October 1999 followed by the establishment of the Tanzania National Roads Agency (TANROADS) in July 2000 as indicated above. However, it is too early to expect TANROADS to perform to the standards that will please most of us as road users. As seen below, the estimated cost to the economy for not undertaking various maintenance activities on the road can be very high and as a loss to the nation. Table 1 below indicates that the cost of “no maintenance” to Tanzania was around one million dollars per day in the FY 97/98.

Item	Loss US\$m/year
Vehicle operators	132
Reinstatement Costs	108
Donor Confidence Undermined	80
Road Construction Industry Damaged	40
Morale of road officials reduced	5
Total	365

Table 1: Cost of no Maintenance in Tanzania

5. CONCLUSION

The way ahead will not be smooth. Delivering road maintenance in conditions of severe resource constraint has proved to be a particularly intractable problem. Roads have a particularly political nature. They are regarded as key to development, and a politician who can validly claim to have brought a road to their people his importance is easily recognized. Major road developments are political animals not only in Tanzania but also in many other countries, and in developing countries with such dilapidated road networks, even minor road development and rehabilitation or maintenance becomes a political issue. The option to commission a rehabilitated road section as an achievement will always be symbolic.

It is worthwhile to note that the concept of maintenance or preservation of asset as a technical activity within the sector becomes redundant since any work is a major improvement. The key activity is maintaining the road surface condition for comfort ridability and access rather than a good standard of serviceability and road texture. Funds are so short that allocations tend to be done on a monthly or emergency basis and the worst spots are fixed first. This is contrary to the engineering-economics and conventional wisdom that maintenance gives a better return than construction. However, the level of backlog maintenance in a country like Tanzania prohibit direct application of engineering principles hence modification on almost daily basis. For that reason there is then a perpetual conflict between the planner (engineer/economist) and the practitioner (constructor/politician) in that respect. In many areas, the roads are so bad that they cannot be considered engineered, and perhaps political judgement on priorities is the only sensible solution.

Maybe the key to institutional reform in these circumstances could be to “Render unto Caesar what is Caesar’s”. The donors, lead by technocrats, tend to favour the maintenance approach. Governments faced by repeated emergencies tend to favour the political approach. For developing countries the innovative proposal here is to not only demarcating the divisions of road organisations by the functions they perform, but also by the roads that they are responsible for. The advantage would be that the person responsible for good roads could defend their works programme by disclaiming responsibility for poor roads. The bottom line however, should be for the politicians to have **“eyes on and hands off the development and maintenance funds”**. Decisions regarding maintenance of good roads could be left to the technician and decisions regarding improvement of poor roads could be a political process involving local political leaders. This demarcation of responsibility could be as follows:

	Maintenance Division	Development Division
Roads	Those in good condition.	Those in poor condition.
Functions	Routine, recurrent and periodic maintenance.	Construction, upgrading, rehabilitation, emergency works and accessibility.
Decision making	Technical	Political

Table 3: Division of Road Organisation both by Function and Road Condition

A detailed specification would need to be prepared defining **“good roads”** that would set standards of roughness, shape and drainage, but this is not a major task. Initially, the development division would have a much larger network since the bulk of roads would be in

poor condition. It would also tend to spend more money since it would probably spend maybe half the Road Fund budget in addition to development funds from donors and Government. Once the Development Division has rehabilitated a road it would hand over that road to the Maintenance Division. Such an arrangement would also make it easier to assess whether road management is increasing the asset value of the network. This concept is illustrated in Figure 11 as follows:

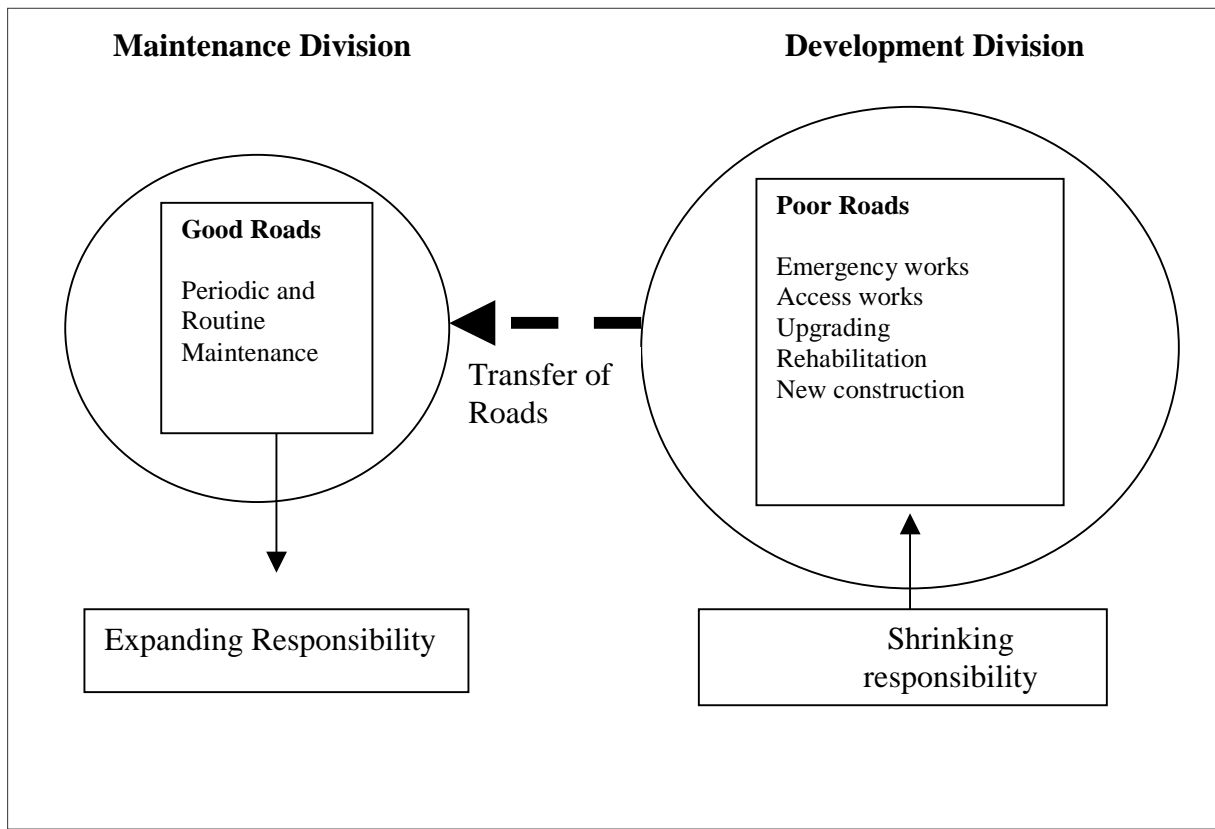


Figure 11: The Expanding Responsibility of a Future Maintenance Division

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